REMARKS

In the Office Action dated June 15, 2006, claims 1-12 were rejected under 35 U.S.C. §112, second paragraph as being indefinite because of the use of the term "3D height" to describe the image dataset that is obtained in the method and apparatus of the present invention. This term was intended to describe an image dataset that represents an image of the type shown in Figure 9 of the Dorsch et al article, which was submitted as Reference AV in the Information Disclosure Statement filed August 19, 2004 or an image as shown in Figure 9 of the Dresel et al article (Reference AW in the Information Disclosure Statement) or Figure 7 in the Engelhardt et al article (Reference AX in the Information Disclosure Statement). Other examples of these types of images are provided in the other articles that were also cited in the Information Disclosure Statement. These articles also are listed at pages 1 and 2 of the present specification. The sensors that produce these types of images can be generally categorized into four different types, namely active triangulation, interferometry, active focus search and propagation measurement, as summarized at pages 5 and 6 of the present specification.

There does not appear to be a single, universally accepted and used nomenclature for this type of image. These types of images are variously referred to in the references as a "3D plot" or a "pseudo-3D image."

To clarify this point, each of independent claims 1 and 7 has been amended to refer to the sensor, or the distance measurement as being selected from the group consisting of the aforementioned four types, and the 3D image dataset has been generically described as representing height above a 2D plane. In view of the citation of the aforementioned articles in the present specification, and the

description of the four types of sensors, and the generic description of the image dataset now set forth in the claims, Applicant respectfully submits a person of ordinary skill in the field of medical imaging would easily understand the type of image dataset that is being generated and used in the inventive system and method. All claims of the application are therefore submitted to be in full compliance with all provisions of 35 U.S.C. §112.

Additionally, claims 1 and 7 were rejected under 35 U.S.C. §102(e) as being anticipated by Stierstorfer. Claims 2-5 and 8-11 were rejected under 35 U.S.C. §103(a) as being obvious over Stierstorfer. Claims 6 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stierstorfer in view of Asahina. Claims 1-12 also were rejected under 35 U.S.C. §103(a) as being unpatentable over Navab in view of Asahina.

These rejections are respectfully traversed for the following reasons.

The above discussion with regard to the claim amendments is also relevant to the prior art rejections. As noted above, each of independent claims 1 and 7 now describes the distance measurement made by the 3D sensor as being performed as an active triangulation, an active focus search, a propagation measurement, or a measurement made by interferometry. Also, each of independent claims 1 and 7 has been amended to state that the 3D image dataset that is acquired as a result of this measurement represents height above a 2D plane, conforming to at least a portion of the surface of the examination subject.

Applicant submits that a 3D sensor that makes a distance measurement of the above-described type is not disclosed or suggested in either of the Stierstorfer or Navab references, and therefore an image dataset that represents a height above a

2D plane, that conforms to a portion of the surface of the examination subject, is not disclosed in either of those references. The respective systems disclosed in the Stierstorfer and Navab references each make use of two cameras, with each camera acquiring a 2D image from a direction that is different than the direction of the image acquired with the other camera. A number of these 2D images are used to reconstruct a 3D image, using computer software. Therefore, although a 3D image is reconstructed from the 2D images, the cameras themselves acquire only a 2D image, and in fact are incapable of acquiring a 3D image. Therefore, Applicant submits that neither of the cameras is an "optical 3D sensor" as used in the original language of claims 1 and 7, and clearly the cameras are not the same, or even the equivalent of, the different types of 3D sensors that are now set forth in each of claims 1 and 7.

Moreover, in each of the Stierstorfer and Navab references there is no disclosure that would cause a reader to believe that the reconstructed 3D image is anything other than a conventional 3D image. There is no disclosure or suggestion in either of the Stierstorfer or Navab references that the reconstructed image represents height above a 2D plane, that conforms to at least a portion of the surface of the examination subject. There is no disclosure or suggestion in either of the Stierstorfer or Navab references that the reconstructive 3D image resembles any of the images in the cited figures of the prior art articles that are discussed in the present specification.

The Stierstorfer reference, therefore, does not disclose all of the elements of claim 1, nor all of the method steps of claim 7, as arranged and operating in those claims, and therefore does not anticipate either of claims 1 and 7.

In view of the absence of any teachings in the Stierstorfer reference to make use of a 3D sensor of the type set forth in claims 1 and 7, to obtain an image dataset of the type set forth in claims 1 and 7, none of the claims 2-5 or 8-11 would have been obvious to a person of ordinary skill in the field of medical imaging based on the teachings of the Stierstorfer reference.

Moreover, in view of the absence of such teachings in the Navab reference, which are not supplied by the Asahina reference, none of claims 1-12 would have been obvious to a person of ordinary skill in the field of medical imaging under the provisions of 35 U.S.C. §103(a) based on a combination of the teachings of Navab and Asahina.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,

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